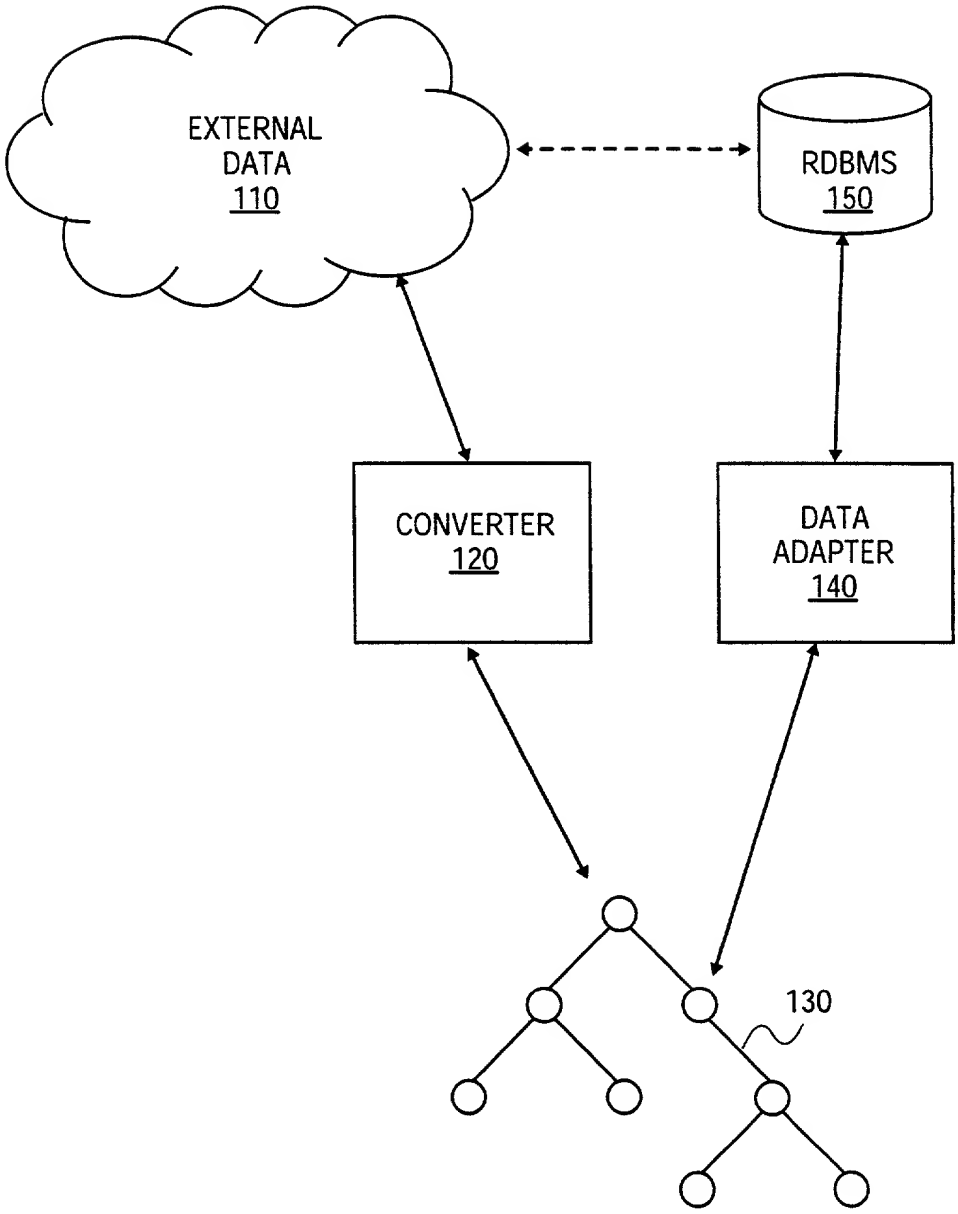
EXTERNAL
DATA
110
RDBMS
150
CONVERTER
120
DATA
ADAPTER
140
130

FIG. 1

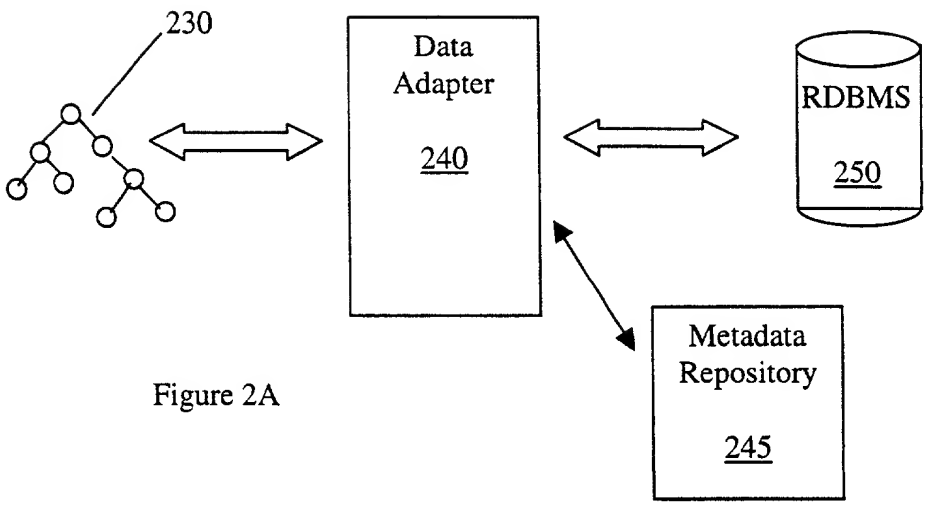

Figure 2A

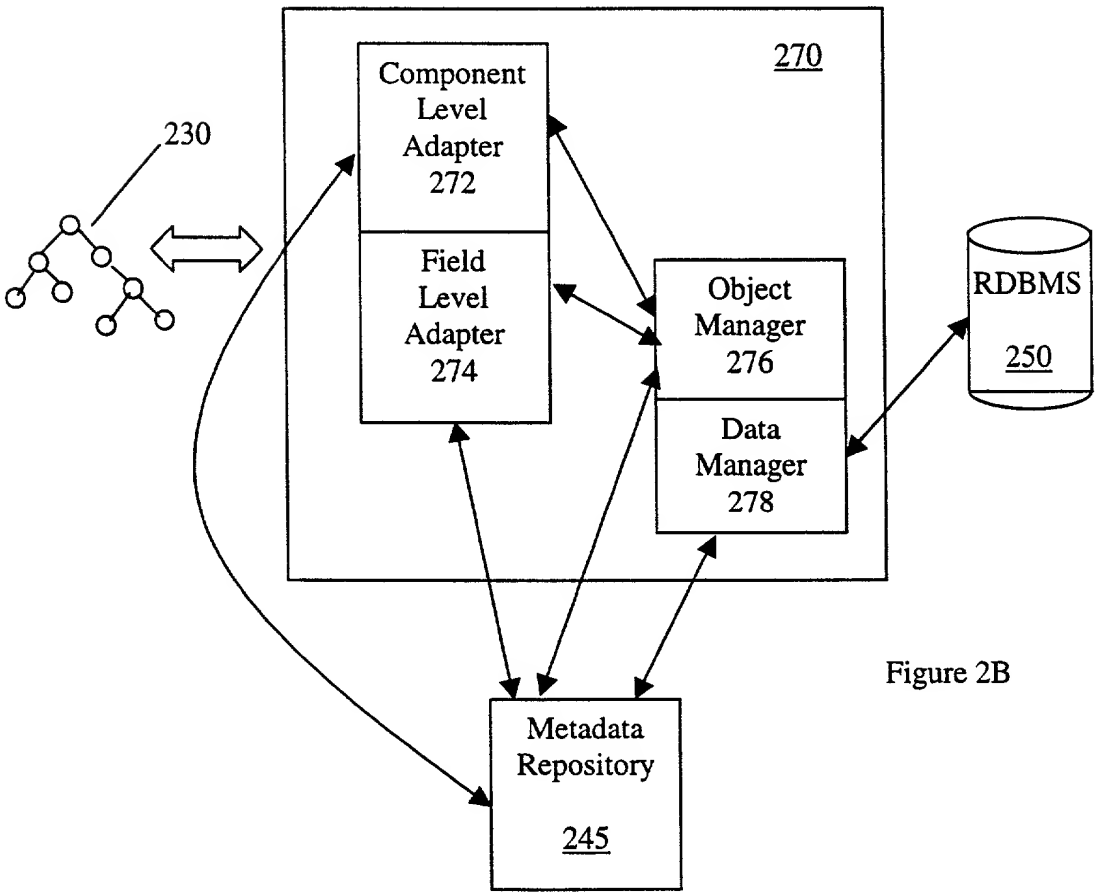

Figure 2B

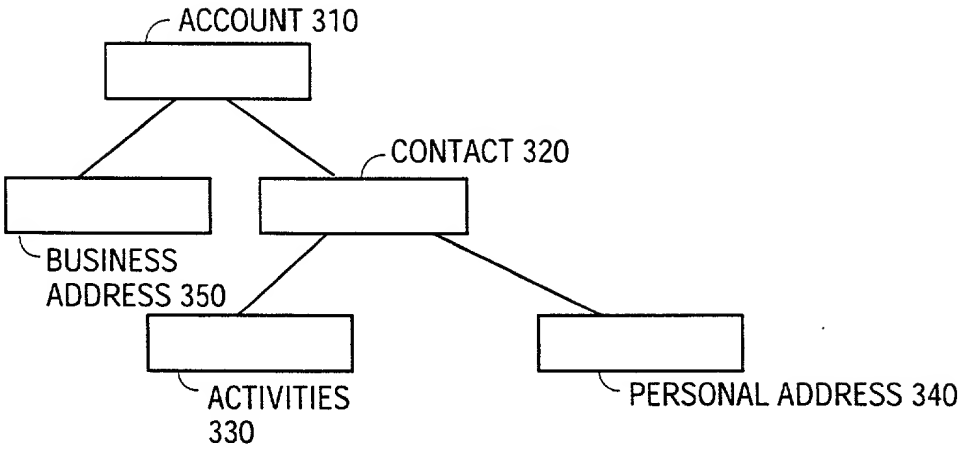
ACCOUNT 310
CONTACT 320
BUSINESS ADDRESS 350
ACTIVITIES 330
PERSONAL ADDRESS 340

FIG. 3A

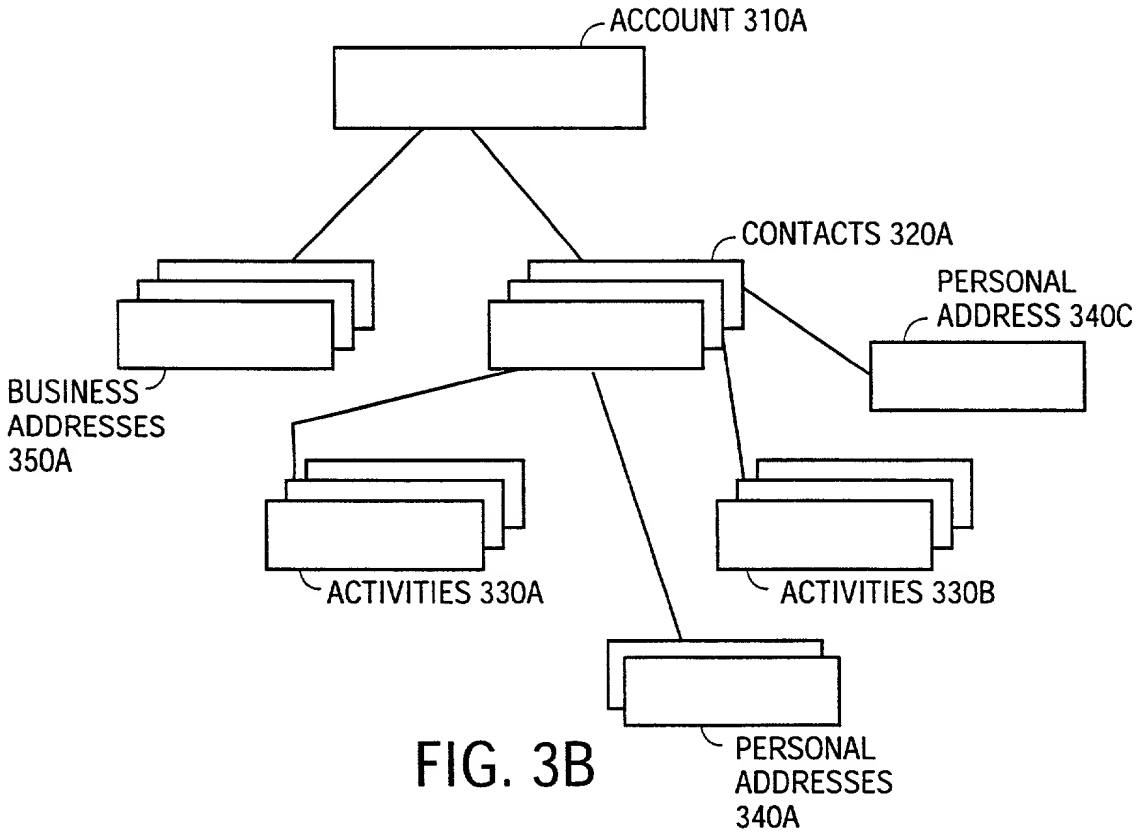
ACCOUNT 310A
CONTACTS 320A
PERSONAL ADDRESS 340C
BUSINESS ADDRESSES 350A
ACTIVITIES 330A
ACTIVITIES 330B
PERSONAL ADDRESSES 340A

FIG. 3B

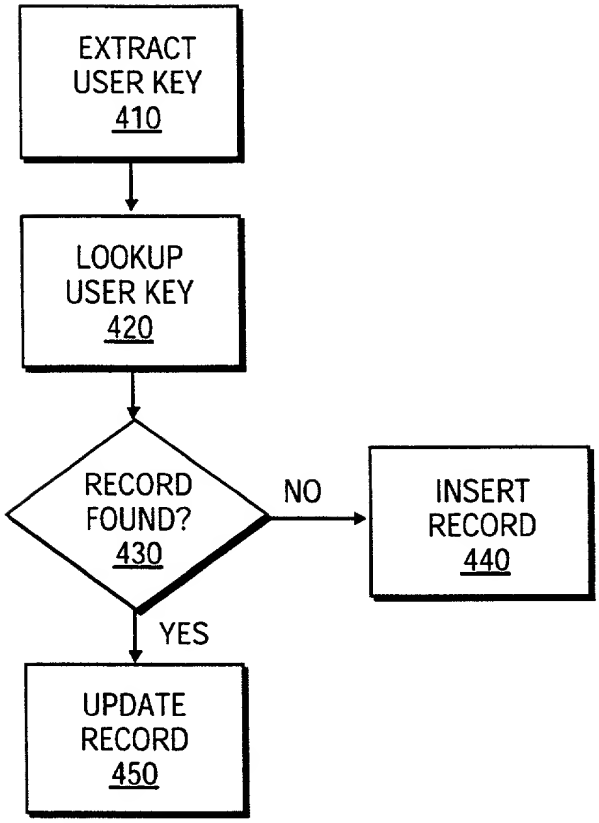
EXTRACT USER KEY 410
LOOKUP USER KEY 420
RECORD FOUND? 430
NO
INSERT RECORD 440
YES
UPDATE RECORD 450

FIG. 4A

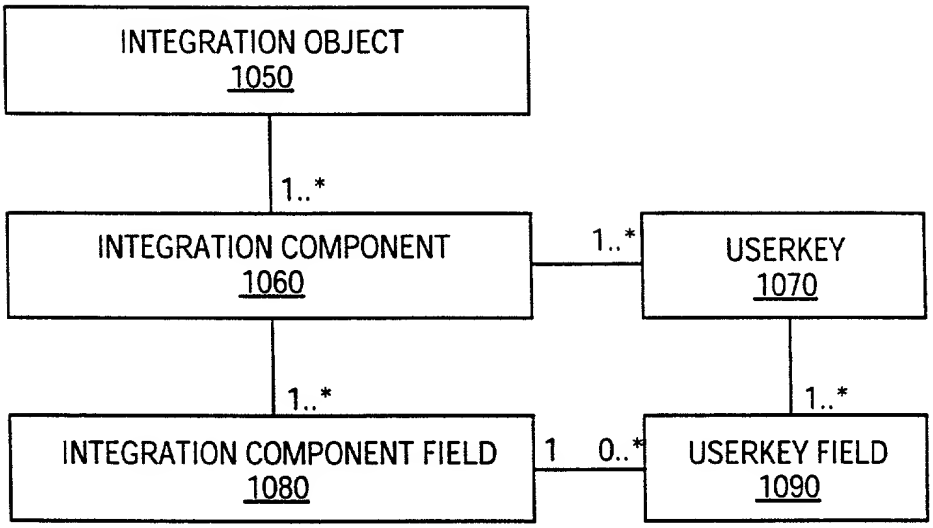
INTEGRATION OBJECT
1050
1..*
INTEGRATION COMPONENT
1060
1..*
USERKEY
1070
1..*
1..*
INTEGRATION COMPONENT FIELD
1080
1
0..*
USERKEY FIELD
1090

FIG. 4B

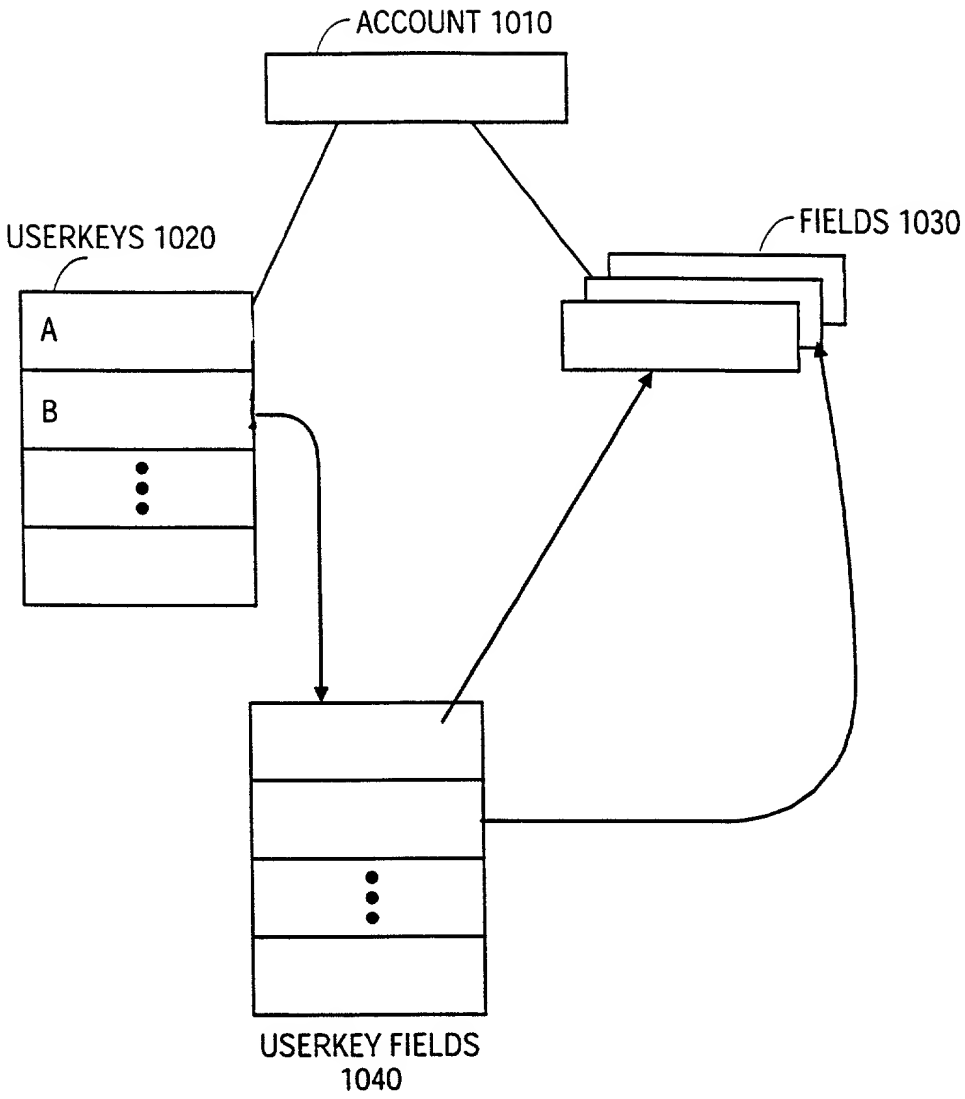
ACCOUNT 1010
USERKEYS 1020
FIELDS 1030
A
B
USERKEY FIELDS
1040

FIG. 4C

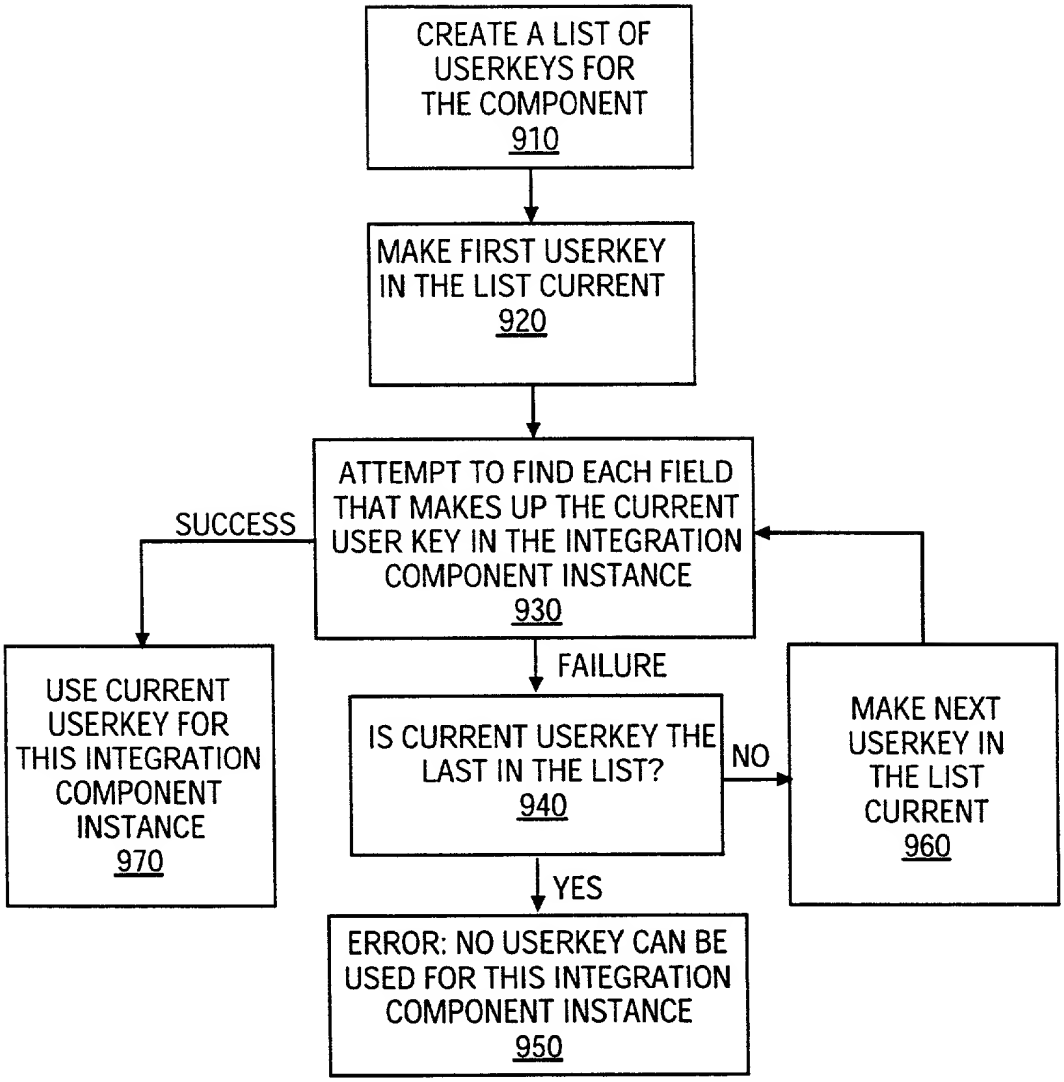
CREATE A LIST OF USERKEYS FOR THE COMPONENT
910
MAKE FIRST USERKEY IN THE LIST CURRENT
920
ATTEMPT TO FIND EACH FIELD THAT MAKES UP THE CURRENT USER KEY IN THE INTEGRATION COMPONENT INSTANCE
930
SUCCESS
FAILURE
USE CURRENT USERKEY FOR THIS INTEGRATION COMPONENT INSTANCE
970
IS CURRENT USERKEY THE LAST IN THE LIST?
940
NO
YES
MAKE NEXT USERKEY IN THE LIST CURRENT
960
ERROR: NO USERKEY CAN BE USED FOR THIS INTEGRATION COMPONENT INSTANCE
950

FIG. 4D

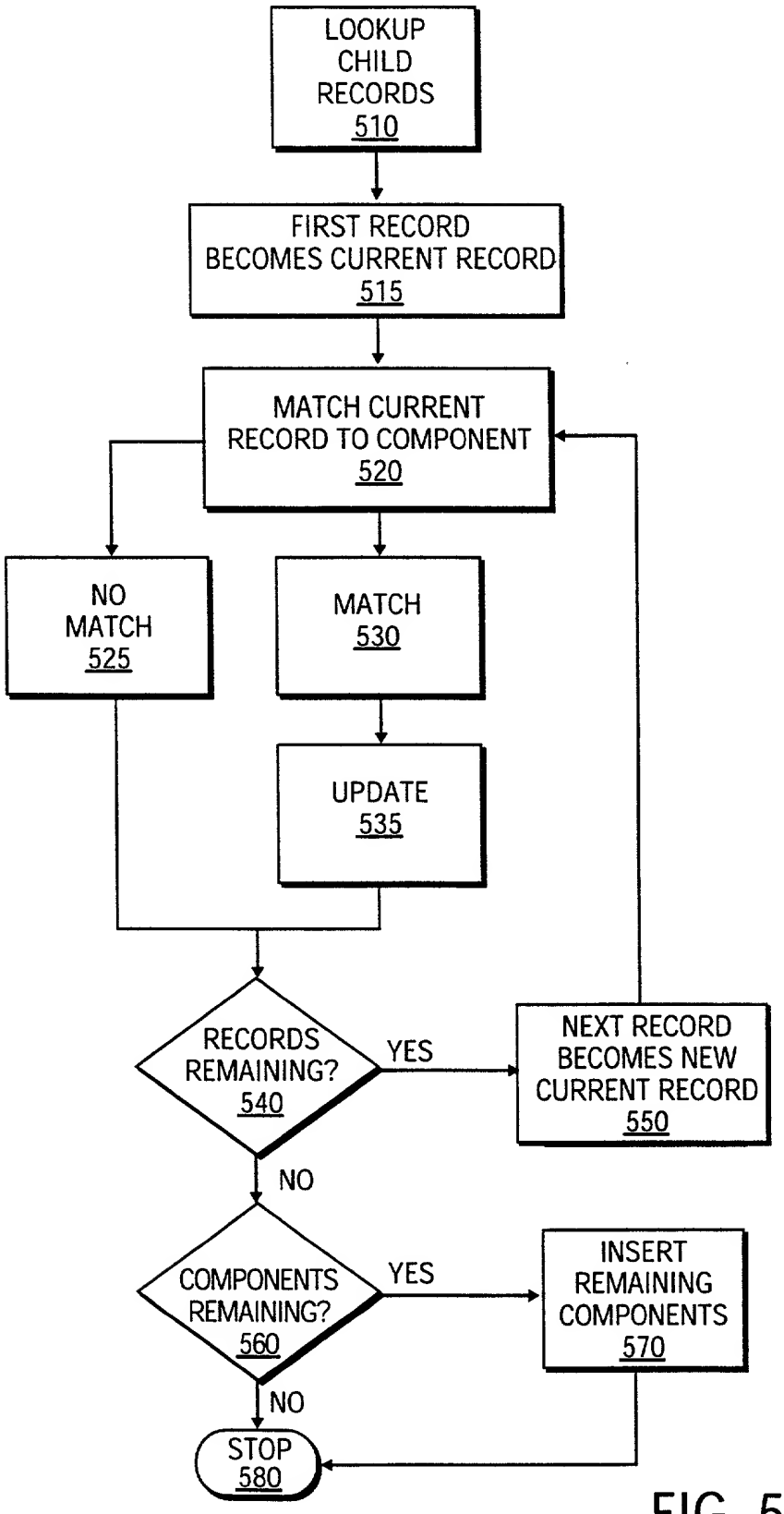
LOOKUP CHILD RECORDS 510
FIRST RECORD BECOMES CURRENT RECORD 515
MATCH CURRENT RECORD TO COMPONENT 520
NO MATCH 525
MATCH 530
UPDATE 535
RECORDS REMAINING? 540
YES
NEXT RECORD BECOMES NEW CURRENT RECORD 550
NO
COMPONENTS REMAINING? 560
YES
INSERT REMAINING COMPONENTS 570
NO
STOP 580

FIG. 5

INPUT	EXISTING RDBMS	RESULT
X	X	UPDATE
X	-	INSERT
-	X	DELETE/ NO-OP

FIG. 6

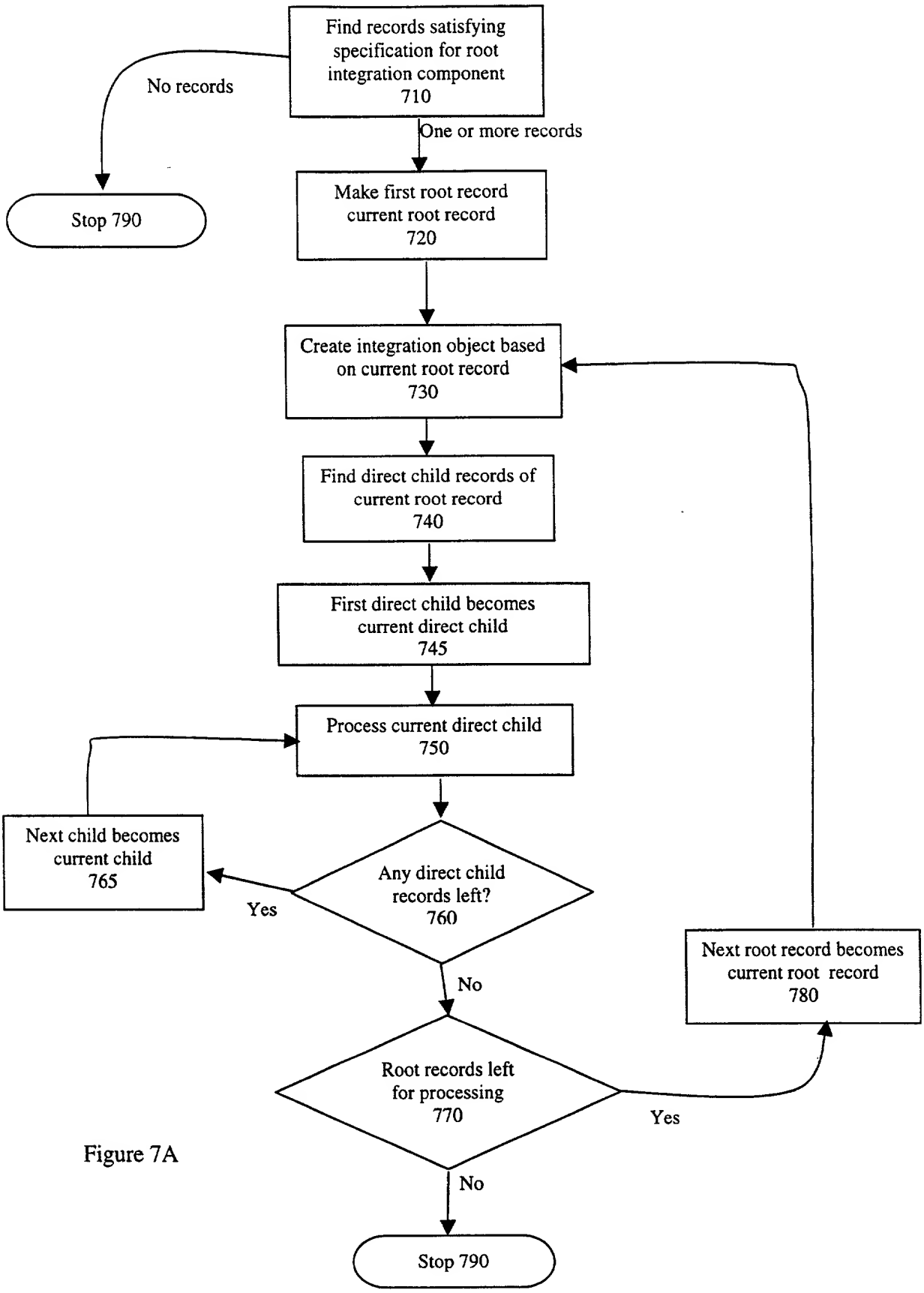
Find records satisfying specification for root integration component 710
No records
Stop 790
One or more records
Make first root record current root record 720
Create integration object based on current root record 730
Find direct child records of current root record 740
First direct child becomes current direct child 745
Process current direct child 750
Next child becomes current child 765
Yes
Any direct child records left? 760
No
Next root record becomes current root record 780
Root records left for processing 770
Yes
No
Stop 790

Figure 7A

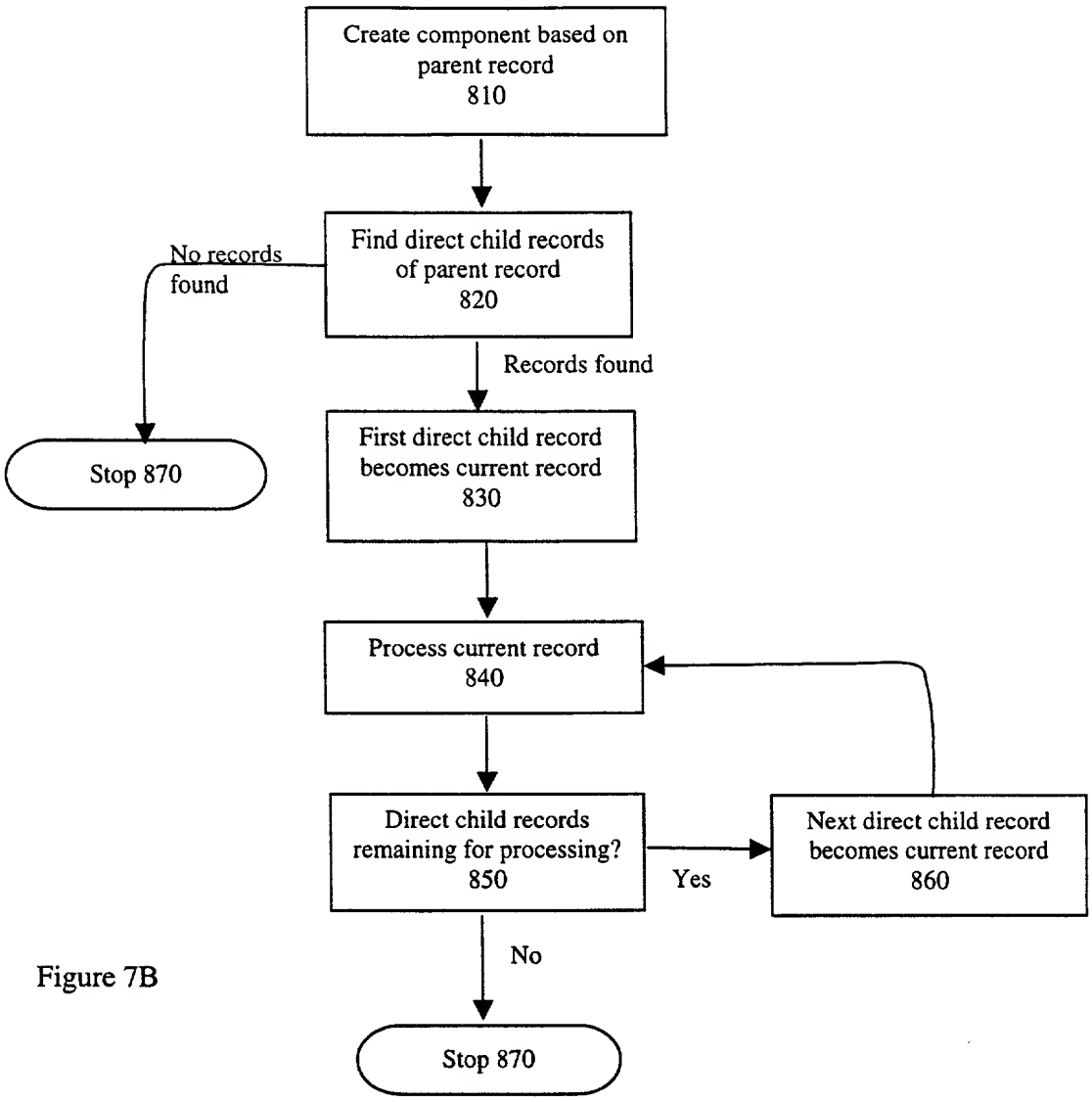
Create component based on parent record 810
Find direct child records of parent record 820
No records found
Stop 870
Records found
First direct child record becomes current record 830
Process current record 840
Direct child records remaining for processing? 850
Yes
Next direct child record becomes current record 860
No
Stop 870

Figure 7B

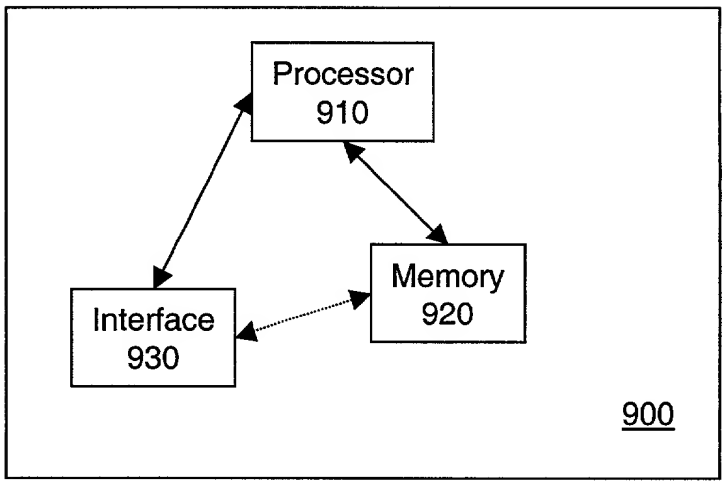

Figure 8